



1 Amendments to the claims:

2

3 1. (Currently amended) A simplified "T" interchange design for  
4 an intersection of a four lane expressway with a two lane highway,  
5 said interchange design comprising:

6 a first road surface with traffic moving in a left to right  
7 direction, said first road surface having at least two lanes for  
8 traffic moving in said left to right direction;

9 a second road surface for traffic moving in a right to left  
10 direction, said second road surface having at least two lanes for  
11 traffic moving in said right to left direction;

12 an open space between said first road surface and said second  
13 road surface, said open space substantially forming a median;

14 a third road surface for traffic intending to intersect said  
15 first road surface and said second road surface; said third road  
16 surface having at least one lane for traffic moving toward said  
17 first road surface and said second road surface; said third road  
18 surface having at least one lane for traffic moving away from said  
19 first road surface and said second road surface;

20 a bridge located on said first road surface substantially  
21 where said third road surface intersects said first road surface,  
22 said bridge configured so that vehicles traveling on said first  
23 road surface pass over said bridge, and above said third road  
24 surface; said bridge configured so that vehicles traveling on said  
25 third road surface pass under said bridge, and under said first

1 road surface;

2 whereby a "simplified "T" interchange design " is provided  
3 that provides many benefits; most importantly, all the hazardous  
4 elements of existing expressway "T" intersections are eliminated,  
5 the results will be the elimination of all future serious and  
6 fatal accidents; also, the new "T" interchange design will be very  
7 safe for vehicles passing through the new interchange from any  
8 direction as vehicles are never required to cut across lanes of  
9 high speed traffic when making transitions between the two lane  
10 highway and the four lane expressway; and any vehicles passing in  
11 front of one another would at most be traveling at only a few miles  
12 an hour, thus, any accidents would be minor; additionally, "on  
13 ramps" and "off ramps" can be provided so that vehicle making  
14 transitions are able to get up to speed before merging with high  
15 speed traffic; also, the new simplified interchange design will not  
16 be confusing for vehicles passing through the interchange from any  
17 direction even if the interchange is built on a curving expressway,  
18 and the interchange would very inexpensive to build when compared  
19 to the cost to build a conventional interchange, as the simplified  
20 design for a "T" interchange can built for approximately 20% to  
21 25% of the cost of a traditional interstate interchange thereby  
22 saving government transportation departments millions of dollars,  
23 additionally, the simplified "T" interchange design may only take  
24 up 20% to 25% of the space of a conventional expressway freeway

1 interchange, thereby saving money and land for other uses.

2  
3 2. (Currently amended) The simplified "T" interchange design  
4 of claim 1 including an ~~An~~ exit ramp from said first road  
5 surface connecting onto said third road surface.

6  
7 3. (Currently amended) The simplified "T" interchange design  
8 of claim 1 including an ~~An~~ exit ramp from said third road  
9 surface connecting onto said first road surface.

10  
11 4. (Currently amended) The simplified "T" interchange design  
12 of claim 1 including an ~~An~~ exit ramp from said second road  
13 surface onto said median , said exit ramp connecting onto said  
14 third road surface.

15  
16 5. (Currently amended) The simplified "T" interchange design  
17 of claim 1 including an ~~An~~ on ramp connecting from said third  
18 road surface, passing through ~~from~~ said median, and connecting  
19 onto said second road surface.

20  
21 6. (Currently amended) A simplified "T" interchange design for  
22 an intersection of a four lane expressway with a two lane highway,  
23 said interchange design comprising:

24 a first road surface with traffic moving in a left to right

1 direction, said first road surface having at least two lanes for  
2 traffic moving in the left to right direction;

3 a second road surface for traffic moving in a right to left  
4 direction, said second road surface having at least two lanes for  
5 traffic moving in the right to left direction;

6 an open space between said first road surface and said second  
7 road surface, said open space substantially forming a median;

8 a third road surface for traffic intending to intersect said  
9 first road surface and said second road surface; said third road  
10 surface having at least one lane for traffic moving toward said  
11 first road surface and said second road surface; said third road  
12 surface having at least one lane for traffic moving away from said  
13 first road surface and said second road surface;

14 a bridge located on said third road surface substantially  
15 where said third road surface intersects said first road surface,  
16 said bridge configured so that vehicles traveling on said first  
17 road surface pass under said bridge, and, under said third road  
18 surface, said bridge configured so that vehicles traveling on said  
19 third road surface pass over said bridge, and over said first road  
20 surface;

21 whereby a "simplified "T" interchange design " is provided  
22 that provides many benefits; most importantly, all the hazardous  
23 elements of existing expressway "T" intersections are eliminated,  
24 the results will be the elimination of all future serious and

1 fatal accidents; also, the new "T" interchange design will be very  
2 safe for vehicles passing through the new interchange from any  
3 direction as vehicles are never required to cut across lanes of  
4 high speed traffic when making transitions between the two lane  
5 highway and the four lane expressway; and any vehicles passing in  
6 front of one another would at most be traveling at only a few miles  
7 an hour, thus, any accidents would be minor; additionally, "on  
8 ramps" and "off ramps" can be provided so that vehicle making  
9 transitions are able to get up to speed before merging with high  
10 speed traffic; also, the new simplified interchange design will not  
11 be confusing for vehicles passing through the interchange from any  
12 direction even if the interchange is built on a curving expressway,  
13 and the interchange would very inexpensive to build when compared  
14 to the cost to build a conventional interchange, as the simplified  
15 design for a "T" interchange can built for approximately 20% to  
16 25% of the cost of a traditional interstate interchange thereby  
17 saving government transportation departments millions of dollars,  
18 additionally, the simplified "T" interchange design may only take  
19 up 20% to 25% of the space of a conventional expressway freeway  
20 interchange, thereby saving money and land for other uses.

21  
22 7. (Currently amended) The simplified "T" interchange design of  
23 claim 6 including an ~~An~~ exit ramp from said first road surface  
24 connecting onto said third road surface.

1 8. (Currently amended) The simplified "T" interchange design of  
2 claim 6 including an ~~An~~ exit ramp from said third road surface  
3 connecting onto said first road surface.

4  
5 9. (Currently amended) The simplified "T" interchange design of  
6 claim 6 including an ~~An~~ exit ramp from said second road surface  
7 onto said median , said exit ramp connecting onto said third road  
8 surface.

9  
10 10. (Currently amended) The simplified "T" interchange design of  
11 claim 6 including an ~~An~~ on ramp connecting from said third road  
12 surface, passing through ~~from~~ said median, and connecting onto  
13 said second road surface.

14  
15 11. (New) A simplified "T" interchange design for an intersection  
16 of a four lane expressway with a two lane highway, said interchange  
17 design comprising:

18 a first road surface with traffic moving in a left to right  
19 direction, said first road surface having at least two lanes for  
20 traffic moving in said left to right direction,

21 a second road surface for traffic moving in a right to left  
22 direction, said second road surface having at least two lanes for  
23 traffic moving in said right to left direction ,

24 an open space between said first road surface and said second

1 road surface, said open space substantially forming a median;

2 a third road surface for traffic intending to intersect said  
3 first road surface and said second road surface; said third road  
4 surface having at least one lane for traffic moving toward said  
5 first road surface and said second road surface; said third road  
6 surface having at least one lane for traffic moving away from said  
7 first road surface and said second road surface;

8 a bridge located on said first road surface substantially  
9 where said third road surface intersects said first road surface,  
10 said bridge configured so that vehicles traveling on said first  
11 road surface pass over said bridge, and over said third road  
12 surface; said bridge configured so that vehicles traveling on said  
13 third road surface pass under said bridge, and under said first  
14 road surface;

15 an exit ramp from said second road surface onto said median ,  
16 said exit ramp connecting onto said third road surface;

17 an on ramp connecting from said third road surface, passing  
18 through said median, and connecting onto said second road surface;

19 whereby a "simplified "T" interchange design " is provided  
20 that provides many benefits; most importantly, all the hazardous  
21 elements of existing expressway "T" intersections are eliminated,  
22 the results will be the elimination of all future serious and  
23 fatal accidents; also, the new "T" interchange design will be very  
24 safe for vehicles passing through the new interchange from any

1 direction as vehicles are never required to cut across lanes of  
2 high speed traffic when making transitions between the two lane  
3 highway and the four lane expressway; and any vehicles passing in  
4 front of one another would at most be traveling at only a few miles  
5 an hour, thus, any accidents would be minor; additionally, "on  
6 ramps" and "off ramps" can be provided so that vehicle making  
7 transitions are able to get up to speed before merging with high  
8 speed traffic; also, the new simplified interchange design will not  
9 be confusing for vehicles passing through the interchange from any  
10 direction even if the interchange is built on a curving expressway,  
11 and the interchange would very inexpensive to build when compared  
12 to the cost to build a conventional interchange, as the simplified  
13 design for a "T" interchange can built for approximately 20% to  
14 25% of the cost of a traditional interstate interchange thereby  
15 saving government transportation departments millions of dollars,  
16 additionally, the simplified "T" interchange design may only take  
17 up 20% to 25% of the space of a conventional expressway freeway  
18 interchange, thereby saving money and land for other uses.

19  
20 12. (New) The simplified "T" interchange design of claim 11  
21 including an exit ramp from said first road surface connecting onto  
22 said third road surface.

23  
24 13. (new) The simplified "T" interchange design of claim 11



1 including an exit ramp from said third road surface connecting onto  
2 said first road surface.

3  
4 14. (new) The simplified "T" interchange design of claim 11  
5 including a traffic signal at the end of said third road surface  
6 substantially where said third road surface meets said second road  
7 surface.

8  
9 15. (new) The simplified "T" interchange design of claim 11  
10 including a traffic signal at the end of said exit ramp  
11 substantially where said exit ramp from said second road surface  
12 meets said third road surface.

13  
14 16. (New) The simplified "T" interchange design of claim 11  
15 including an exit ramp from said first road surface connecting onto  
16 said third road surface; also,  
17 including an exit ramp from said third road surface connecting  
18 onto said first road surface; also,  
19 including a traffic signal at the end of said third road  
20 surface substantially where said third road surface meets said  
21 second road surface; also,  
22 including a traffic signal at the end of said exit ramp  
23 substantially where said exit ramp from said second road surface  
24 meets said third road surface.

1 17. (new) The simplified "T" interchange design of claim 11  
2 including an "up ramp" on said first surface originating at the  
3 ground level of said interchange location, said "up ramp" rising to  
4 meet the top of said bridge; and, a "down ramp" originating at said  
5 top of said bridge, said "down ramp" terminating at said ground  
6 level of said interchange location.

7  
8 18. (new) The simplified "T" interchange design of claim 11  
9 wherein said bridge is an arched bridge with Brownstone color &  
10 texture that is similar to native brownstone located Bayfield  
11 County Wisconsin;

12 thereby providing a design that would be very attractive and  
13 could be a land mark and could be referred to as "a gateway" to the  
14 local national park and Apostle Islands; additionally an arched  
15 brownstone bridge could be designed to look as if it were built  
16 hundreds or even a thousand years ago similar to Roman Bridges  
17 built in Europe more than a thousand years ago.

18  
19 19. (new) The simplified "T" interchange design of claim 11  
20 wherein said bridge and ramps have a Brownstone color & texture  
21 that is similar to native brownstone located Bayfield County  
22 Wisconsin;

23 thereby providing a design that would be very attractive and  
24 could be a land mark and could be referred to as "a gateway" to the

1 local national park and Apostle Islands.

2

3 20. (new) The simplified "T" interchange design of claim 11  
4 wherein said bridge and ramps have a color & texture that is  
5 similar to native stone wherever said simplified "T" interchange is  
6 built ;

7 thereby providing a design that would be very attractive  
8 wherever said simplified "T" interchange is built.